



The function  $f$  is such that

$$f(x) = 4x - 7$$

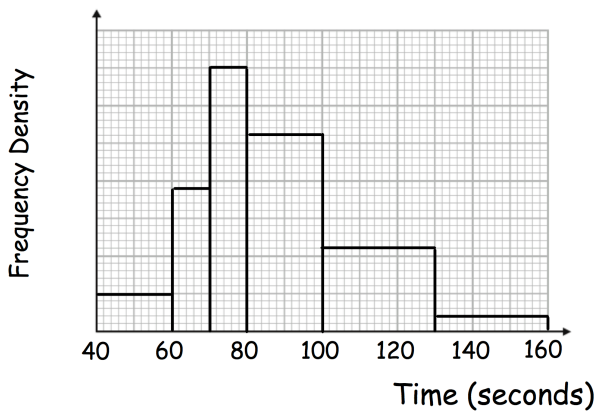
solve

$$f(x) = 17$$

Find

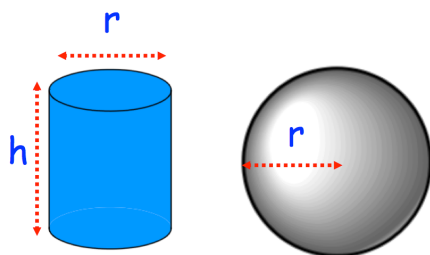
$$f^{-1}(x)$$

The histogram shows how long it took the students in years 10 and 11 to solve a puzzle.



117 students took longer than 100 seconds to solve the puzzle.

Calculate an estimate of the number of students who took between 50 and 95 seconds to solve the puzzle.



The surface area of the cylinder is equal to the surface area of the sphere.

Express  $h$  in terms of  $r$